

● TECHNICAL ADVISORY — HOME EDITION

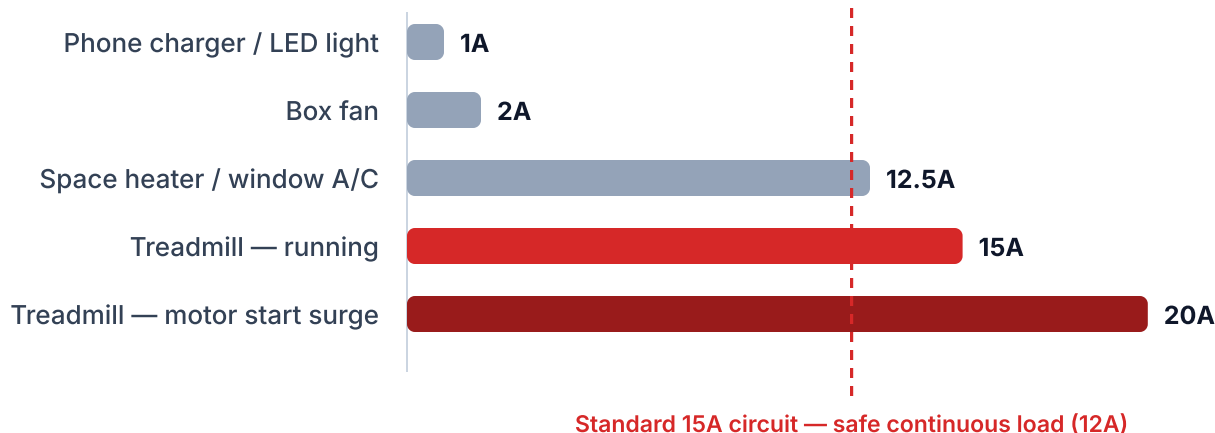
Why Your Treadmill Needs Its Own Dedicated Circuit

What's really sharing power with your machine — and what it's costing you

A spare bedroom or bonus room feels like a safer bet than a garage — but the circuit behind that wall outlet was almost never sized with a treadmill in mind. It was sized for a lamp and a phone charger. A machine that pulls a sustained 12–20 amps every time you run puts that circuit under a load it was never built to carry.

● THE HIDDEN LOAD PROBLEM

A treadmill's motor pulls far more current than most people expect — especially for the split second it starts moving under load. Here's how that compares to a standard household circuit:



● WHAT'S ALREADY SHARING YOUR CIRCUIT

Space heater or window A/C

The single biggest silent circuit-hog in a home gym room — often left running during workouts.

Lamps, TV & electronics

Small loads individually, but they add up on a circuit already near capacity.

Vacuum or hair dryer nearby

High-draw appliances on a neighboring outlet can pull from the same breaker.

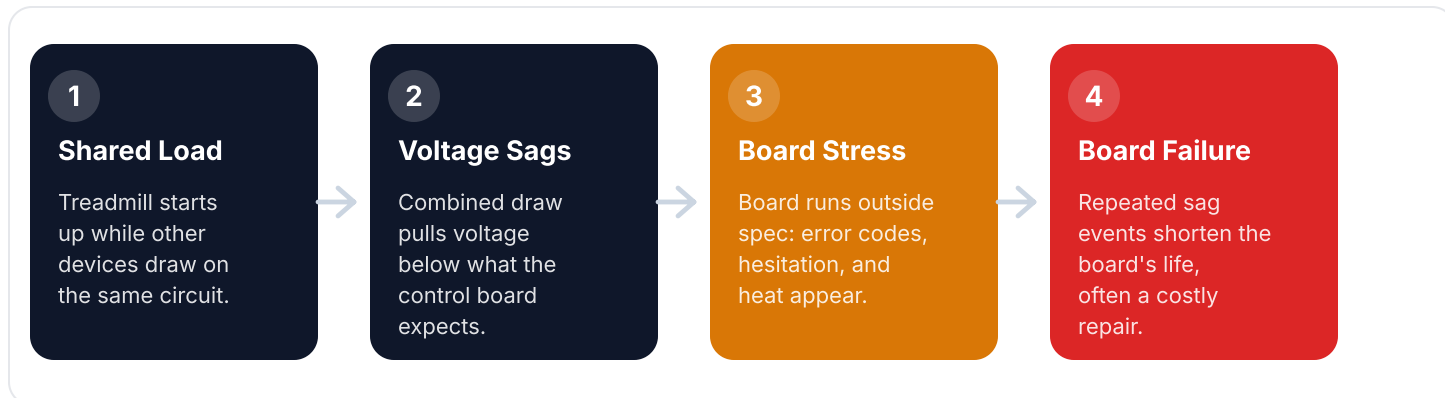
Power strips & surge protectors

Convenient, but they invite more devices onto a circuit that's already stretched thin.

WHY THIS MATTERS MORE THAN IT SEEMS

Unlike a full breaker trip — which you notice immediately — a partial voltage sag is silent. The workout doesn't stop, but the motor control board is running outside its designed voltage range every time it happens, and that damage adds up unnoticed.

• HOW SHARED POWER BECOMES A REPAIR BILL



• SYMPTOMS WE SEE MOST OFTEN

SYMPTOM	WHAT'S LIKELY HAPPENING
Random shutdowns mid-run	Breaker tripping from combined load on the circuit
Console error codes (E1, E4, etc.)	Control board seeing a voltage sag it isn't designed for
Belt hesitates, surges, or feels inconsistent	Motor isn't receiving stable, continuous voltage
Breaker or outlet warm to the touch	Wiring undersized for a sustained motor-level draw

• THE FIX

The fix is a dedicated 20A/120V circuit run directly from the panel to a single outlet at the treadmill's location — no lamps, no space heater, no power strip sharing that line.

- ✓ Dedicated 20A/120V circuit run directly from the panel — no shared loads.
- ✓ Single outlet installed at the treadmill's location, sized and rated for the machine.
- ✓ No extension cords or power strips — they add resistance and voltage drop.
- ✓ Installation performed by a licensed electrician, per local code.
- ✓ Check your owner's manual — many manufacturers require a dedicated circuit to keep the motor and electronics warranty valid.

ALREADY SEEING THESE SYMPTOMS?

If your treadmill is already tripping breakers, throwing error codes, or hesitating under load, the motor control board may already be under stress. Heartbeat Fitness can diagnose whether shared-circuit power is the cause before it turns into a full board replacement.